



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,069	03/26/2004	William Blake Kolb	55752US018	3513

7590

04/05/2005

Brian E. Szymanski
Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, MN 55133-3427

EXAMINER

RINEHART, KENNETH

ART UNIT

PAPER NUMBER

3749

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/810,069	Applicant(s) KOLB ET AL.	
	Examiner Kenneth B Rinehart	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-51, 56 and 57 is/are allowed.
- 6) ☒ Claim(s) 1, 9-16, 22, 25, 26, 52-55 and 58-61 is/are rejected.
- 7) ☒ Claim(s) 2-8, 17-21, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/31/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 2/16/05 have been fully considered but they are not persuasive. The applicant argues that Vial and Seidl do not show or discuss his coating applicator. The examiner disagrees. The web has been coated and is being dried. In order to be coated a coating applicator inherently has to be located upstream. Regarding applicant's statements concerning increasing particle count. The Seidl gas has undergone combustion which will reduce the particle count of the gases used. This is one reason an afterburner is used to combust exhaust gases to meet clean air regulations and reduce particulates. Consequently, the particle count will be reduced. Regarding Friedberg, the applicant argues that Friedberg does not provide a close coupled enclosure. The examiner disagrees. The applicant's analysis utilized a 5-inch foam sheet (which is near the upper range of Friedberg) which placed the size of the apparatus outside the disclosed size of the close coupled enclosure. However, if dimensions closer to the lower range of Friedberg are used, then Friedberg is within the disclosed range.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 10, 11, 12, 15, 16, 22, 25, 26, 52, 54, 55, 58, 59 are rejected under 35

U.S.C. 102(b) as being anticipated by Vial (713612). Vial shows conveying the substrate past a coating applicator (page 1, line 11) and to a dryer or curing station in a close coupled enclosure

Art Unit: 3749

or series of interconnected close coupled enclosures while supplying the enclosure or series of enclosures with one or more streams of conditioned gas flowing at a rate sufficient to reduce materially the particle count in the close coupled enclosure (fig. 1, page 2, lines 54-56, positive pressure in the chamber which will inherently reduce the particle count.), at least two close-coupled enclosures have different pressures, temperatures, average headspaces or average footspaces (6, 7, fig. 1), maintaining or establishing a positive pressure in at least one close coupled enclosure and maintaining or establishing a negative pressure in at least one other close coupled enclosure (6, 7, fig. 1, page 2, lines 103-105, page 2, lines 54-56), comprising supplying a conditioned gas stream to at least the first in a series of interconnected close coupled enclosures whereby the conditioned gas is carried along with the moving substrate to a downstream close coupled enclosure or pushed to an upstream enclosure or process (fig. 1, gas will inherently be carried along.), supplying conditioned gas streams to a plurality of close coupled enclosures and withdrawing gas from a plurality of close coupled enclosures (6,7, fig. 1), maintaining a pressure gradient of at least about -0.5 Pa or higher in a close coupled enclosure (page 2, lines 54-56), maintaining a positive pressure gradient in a close coupled enclosure (page 2, lines 54-56), a first chamber having a gas introduction device is positioned near a control surface (end of 17, fig. 1), a second chamber having a gas withdrawal device is positioned near the control surface (beginning of 10, fig. 1), the control surface and first and second chambers together define a region wherein adjacent gas phases possess an amount of mass (fig. 1, Gas inherently has mass.), at least a portion of the mass from the adjacent gas phases is transported through the gas withdrawal device by inducing a flow through the region (10, fig. 1), and the mass flow can be segmented into the following components: M1 means total net time-average mass flow per unit

Art Unit: 3749

of substrate width into or out of the region resulting from pressure gradients (page 2, lines 54-56), M1' means the total net time-average mass flow of a gas per unit width into the region through the first chamber from the gas introduction device (end of 17, fig. 1), M2 means the time-average mass flow of conditioned gas per unit width from or into the at least one major surface of the substrate into or from the region (volatile solvent is continuously dried, fig. 1), M3 means total net time-average mass flow per unit width into the region resulting from motion of the material (This mass flow will inherently occur.), and M4 means time-average rate of mass transport through the gas withdrawal device per unit width (10, fig. 1), flowing a stream of conditioned gas at a rate sufficient to reduce a close enclosure particle count by 75% or more (positive pressure will inherently reduce particle count.), comprising flowing streams of conditioned gas at a rate sufficient to reduce the close enclosure particle counts by 90% or more (positive pressure will inherently reduce particle count.), conveying the substrate past a coating applicator and to a dryer or curing station in a close coupled enclosure or series of interconnected close coupled enclosures while supplying the enclosure or series of enclosures with one or more streams of conditioned gas flowing at a rate sufficient to cause a material change in a physical property of interest for the atmosphere in the close coupled enclosure (fig. 1, page 1, lines 65-69), supplying an enclosure or series of enclosures with one or more streams of conditioned gas distributed at a substantially uniform rate across the substrate width (fig. 1), the distributed streams of gas do not disturb the coating sufficiently to cause mottle or other defects (It is inherent that defective product would not be intentionally manufactured.).

Claim 1, 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Seidl (5528839). Seidl shows conveying the substrate past a coating applicator (col. 2, line 52) and to a

Art Unit: 3749

dryer or curing station in a close coupled enclosure or series of interconnected close coupled enclosures while supplying the enclosure or series of enclosures with one or more streams of conditioned gas flowing at a rate sufficient to reduce materially the particle count in the close coupled enclosure (fig. 1, col. 3, lines 40-44), supplying conditioned gas streams to a plurality of close coupled enclosures and withdrawing gas from a plurality of close coupled enclosures (fig. 3), supplying conditioned gas streams to each is a series of interconnected close coupled enclosures (fig. 3), sealing the moving substrate at the upstream and downstream ends of a series of interconnected close coupled enclosure (col. 3, lines 40-44), supplying an enclosure or series of enclosures with one or more streams of conditioned gas distributed at a substantially uniform rate across the substrate width (60, fig. 1), the distributed streams of gas do not disturb the coating sufficiently to cause mottle or other defects (It is inherent that defective product would not be intentionally manufactured)..

Claim 53, 60, 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Friedberg (3542640). Friedberg shows An apparatus for coating a moving substrate of indefinite length comprising a coating applicator (17, fig. 1), dryer or curing station and substrate-handling equipment for conveying the substrate past the coating applicator and through the dryer or curing station (26, 15, fig. 1), the substrate being enveloped from at least the coating applicator to the dryer or curing station in a close-coupled enclosure or series of close-coupled enclosures supplied with one or more streams of conditioned gas blowing at a rate sufficient to cause a material change in a physical property of interest for the atmosphere in a close-coupled enclosure (fig. 1, col. 5, line 17-20), supplying an enclosure or series of enclosures with one or more streams of conditioned gas distributed at a substantially uniform rate across the substrate width

Art Unit: 3749

(25, fig. 1), the distributed streams of gas do not disturb the coating sufficiently to cause mottle or other defects (It is inherent that defective product would not be intentionally manufactured.)..

Allowable Subject Matter

Claims 27-51, 56, 57 are allowed.

Claims 2-8, 17-21, 23, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 571-272-4881.

The examiner can normally be reached on 7:20 -4:20.

Art Unit: 3749

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kbr


KENNETH RINEHART
PRIMARY EXAMINER